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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,219	10/20/2003	Craig E. Cox	21955	2336

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EXAMINER	
DUONG, THANH P	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,219	COX ET AL.	
	Examiner	Art Unit	
	Tom P. Duong	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) *29-46 and 55-60* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28 and 47-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/2/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-28 and 47-54, drawn to a system for treating flue gas, classified in class 422, subclass 168.

II. Claims 29-46 and 55-60, drawn to a method for decreasing toxic emissions, classified in class 423, subclass 239.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the method of removing nitrogen oxide and sulfur oxide can be done by a dry scrubber or by a selective catalyst reactor other than wet scrubbers.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Erik Ericksen on 09/07/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-28 and 47-54). Affirmation of this election must be made by applicant in replying to this Office action. Claims 29-46 and 55-60 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-8, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Doyle (4,925,633). The system is being treated as an apparatus. Doyle discloses a system for treatment of flue gas from a coal fired circulating fluidized bed (Fig. 1 and Col. 1, lines 10-15), comprising a wet scrubber (8) operatively connected to the

circulating fluidized bed (1) reactor and configured for treating the flue gas, and particulate cleaning device.

2. Claims 1-8, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Alix et al. (6,132,692). The system is being treated as an apparatus. Alix discloses a system for treatment of flue gas from a coal fired circulating fluidized bed (Fig. 2 and Col. 1, lines 15-20), comprising a wet scrubber (110) operatively connected to the circulating fluidized bed (1) reactor and configured for treating the flue gas, and particulate cleaning device (114).

3. Claims 1-2, 7-8, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wietzke (6,395,237). The system is being treated as an apparatus. Wietzke discloses a system for treatment of flue gas from a coal fired circulating fluidized bed (Fig. 1 and Col. 1, lines 5-10), comprising a wet scrubber (150) operatively connected to the circulating fluidized bed (1) reactor and configured for treating the flue gas, and particulate cleaning device (80), and dry scrubber (220).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-6, 9-15, 17-28, and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wietzke '237. Regarding claims 3-6 and 9-11, Wietzke discloses a wet scrubber and a dry scrubber but is silent with respect to the different types of wet scrubbers and dry scrubbers. It is conventional to provide different types of wet scrubbers and dry scrubbers of the claimed invention to treat the flue gas stream and it would have been obvious to do so here since such scrubbers are commercially available. Regarding claim 9, Wietzke discloses a dry scrubber 220 in the system but fails to disclose the dry scrubber is located between the CFB and wet scrubber; however, it would have been obvious matter of design choice to rearrange the location of the wet scrubber to optimize the flue gas treatment process since it has been held in the court that a mere rearranging of parts has no patentable significance unless a new and unexpected result is produced. See *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). Regarding claims 12 and 13, Wietzke '237 discloses the apparatus of the claimed invention; therefore, one of ordinary skill in the art would have expected the system is capable of reducing the SOx content from about 95-100%. Regarding claim 14, Wietzke discloses the apparatus of the claimed invention; thus, one of ordinary skill in the art would have been the system of Wietzke is capable of reducing mercury from the system. Regarding claims 17 and 47, Wietzke discloses the claimed invention except a second wet scrubber; however, it would have been obvious in view of Wietzke to one having ordinary skill in the art to duplicate additional wet scrubber to increase the removal of pollutants from the flue gas stream and it would have been obvious to do so here, since it has been held by the court that a mere duplication of parts has no

patentable weight unless a new and unexpected result is produced. See *In re Harza,* 274, F.2d 669, 124 USPQ 378 (CCPA 1960). Claims 18-28 and 48-54 recite limitations similar to claims 1-16; thus, claims 18-28 and 48-54 are rejected for the same reasons as applied to claims 1-16, above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD
October 17, 2005
TD

Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700